

Ship June 10  
Step 10/10/20  
ASAP

Work Order ID 114027  
March-03-14 10:14:42 AM

\*114027\*

Page 1

Item ID: D3499-2

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Item Name: Mounting Plate

Stop

\*NS2\*

Start Date: 3/03/14 Start Qty: 8.00

\*8\*  
\*8\*

Cust Item ID:

Required Date: 3/17/14 Req'd Qty: 8.00

Customer:

Reference:

Approvals: Process Plan: ML5

Date: 14-03-03

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start

\*NR1\*

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N):

Date: \_\_\_\_\_

Stop

\*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
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D3499	Rev C
-------	-------

100

0.00

7 1  
B φ Jm 14-06-4

\*100\*

FLOW WATER JET

Memo

0.00

FLOW CNC Waterjet

6061-125"

1-Cut as per Dwg D3499

Dwg Rev: C

Prog Rev: C

2-Deburr if necessary

110

QC2- Inspect parts off machine FAI/FAIB

0.00

7 1  
B φ Jm 14-06-4

\*110\*

Memo

0.00

QC

Quality Control

120

QC8- Inspect parts - second check

0.00

7 14-06-04 DAS 9 9:59

\*120\*

Memo

0.00

QC

Quality Control

70 →

DQA:

dust

Date: 14/6/11

QA Closed:

OK

Date: 14-7-3



## WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only 

Work Order:	Part No.:	NCR No.:	DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework	Scrap <input checked="" type="checkbox"/>	Skid-tube	Crosstube	Water Jet	Engineering		
			Use-as-is	Machining	Small Fab	Prod. Eng. Coor.	Quality			
			Suspected Unapproved	Thermoforming	Finishing	Rec/Store/Packaging	Other			
				Large Fab	Composite	Supplier				
114027	D3499-2	14-3994								

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data	14-06-4	100	1x	Machine malfunction. Jet did not shut off before moving to next part. PC. Machine Malfunction	DAS 16 9-89	Scrap <del>destroy</del> use for bend lost bend. NO RE-CUT.	JM 14-06-4	DAS 9 9-89	DAS 16 9-89
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

## FAULT CATEGORY

Landing Gear	General	Folio/Program	Outside Dimensions	Pressure/Forced
Bending	Bend			
Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance	Set-up
Cracks	Broken/Damage/Defect	Hardware	Part Incorrect	Temperature/Cure
Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified	Part Lost/Missing	Weld
Cuffs	Contamination	Instructions Incomplete/Unclear	<input checked="" type="checkbox"/> Part Moved	Wrong Stock Pulled
Crushing	Countersink	Misaligned/off center	Positioned Wrong	
Heat Treat	Cut Too Short	Mislabeled	Power Loss/Surge	Other
Inspection Strip in Tube	Drawing	Misread		
Marks/Chatter	Drill Holes	Off-set		
Turning Sequence	Finish	Out of Calibration		
Wave/Twist in Tube	Fit/Function	Out of Sequence		

**Work Order ID 114027**

March-03-14 10:14:42 AM

**\*114027\***

Page 2

Item ID: D3499-2

Accept

**\*N900040100\***

Setup

Start

**\*NS1\***

Revision ID:

Item Name: Mounting Plate

Stop

**\*NS2\***

Start Date: 3/03/14 Start Qty: 8.00

**\*8\***

Cust Item ID:

Required Date: 3/17/14 Req'd Qty: 8.00

**\*8\***

Customer:

Reference:

Approvals:

Process Plan:

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run

Start

**\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept

Reject

Reject

Insp.  
Stamp

130

**\*130\***

Small Fab

0.00

DAS

30

9-89

7

14/06/05

Small Fab

Memo

0.00

Small Fab

Deburr if necessary.

140

**\*140\***

NC BRAKE

0.00

DAS

30

9-89

7

14/06/05

Brake NC

Memo

0.00

Brake NC

Bend as per Dwg D3499

150

**\*150\***

QC

0.00

Quality Control

Memo

0.00

SWS  
14/06/05

7

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Date:



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date:

## Work Order update only

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>			
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear			General								
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function								
			<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence								
			<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge								
			<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled								
			<input type="checkbox"/> Other								

Work Order ID 114027

March-03-14 10:14:42 AM

\*114027\*

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Item ID:	D3499-2	Accept	*N900040100*	Setup	Start	*NS1*	
Revision ID:				Stop		*NS2*	
Item Name:	Mounting Plate						
Start Date:	3/03/14	Start Qty: 8.00	*8*	Cust Item ID:			
Required Date:	3/17/14	Req'd Qty: 8.00	*8*	Customer:			
Reference:							
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 <b>*160*</b> HandFinish	Chemical Conversion Coat per QSI005 4.1	0.00				7		1465	
Hand Finishing	Memo	0.00							
170 <b>*170*</b> Powdercoat	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00				7	Ø	1465	DAS 34 9.89
Powder Coating	Memo	0.00							
	START TIME: <u>2:35</u>								
	OVEN TEMPERATURE: <u>600</u>								
	FINISH TIME: <u>3:05</u>								
180 <b>*180*</b> QC	QC3- Inspect Part Finish	0.00	SPJ			7			
Quality Control	Memo	0.00	14/6/6						

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Date:



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date:

## Work Order update only

Work Order:				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
				Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function							
				<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence							
				<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge							
				<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled							
				<input type="checkbox"/> Other							

**Work Order ID 114027****\*114027\***

Page 4

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Item ID:	D3499-2	Accept	<b>*N900040100*</b>	Setup	Start	<b>*NS1*</b>	
Revision ID:				Stop		<b>*NS2*</b>	
Item Name:	Mounting Plate						
Start Date:	3/03/14	Start Qty:	8.00	<b>*8*</b>	Cust Item ID:		
Required Date:	3/17/14	Req'd Qty:	8.00	<b>*8*</b>	Customer:		
Reference:							
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	<b>*NR1*</b>
	QC:	Date:	SPC (Y/N):	Date:	Stop		<b>*NR2*</b>

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 <b>*190*</b> Packaging	Identify as per dwg & Stock Location <i>OK</i>	0.00		<b>DAS 30 9-89</b>		<u>7</u>			<i>14/06/13</i>
200 <b>*200*</b> QC Quality Control	Memo QC21- Final Inspection - Work Order Release	0.00				<u>MLJ</u>	<u>14-06-19</u>		
	Memo	0.00							

*AP 4-6-19*

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Date:

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date:

## Work Order update only



Work Order:				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering			
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality			
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other			
				Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear			General								
			Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced Set-up				
			Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure				
			Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld				
			Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled				
			Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>					
			Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>					
			Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>					
			Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>	Other <input type="checkbox"/>					
			Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>						
			Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
			Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						

## Ticketlist Print

Page 1

March-03-14 10:14:45 AM

Work Order ID: 114027

**\*114027\***  
**\*D3499-2\***

Parent Item: D3499-2

Parent Item Name: Mounting Plate

Start Date: 3/03/14

Required Date: 3/17/14

Start Qty: 8.00

Required Qty: 8.00

**Comments:** IPP Rev: A New Issue 06-05-05 JLM  
 IPP Rev:B As per Rev B 06-08-31 JLM  
 revC DD 10.02.23 verified by:EC

IPP Rev:C as per dwg

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.125		Purchased		No		100	sf	138.5330	1.068	9	**		Jm14-06-4

**\*M6061T6S 125\***

6061-T6 .125 Sheet

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT021	138.533	
m127272	39.5	
m127454	67.033	
m127501	32	

J28852

J28852

DQA:

Date:

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

## Work Order update only

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
				Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear			General								
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function								
			<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence								
			<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge								
			<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled								
			<input type="checkbox"/> Other								

DART AEROSPACE LTD	Work Order:	114027
Description: Mounting Plate	Part Number:	D3499-2
Inspection Dwg: D3499 Rev: C		Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST

DAS

Measured by:	Jm	Audited by:	27 0.00	Prototype Approval:	
Date:	14-06-4.	Date:	14/6/23	Date:	

Rev	Date	Change	Revised by	Approved
A	06.06.22	New Issue	KJ/JLM	
B	06.08.31	Dimensions updated per D3499 Rev. B	KJ/JLM	
C	09.05.04	Dimensions updated	KJ/DD	
D	13.06.03	Dimensions updated per Dwg Rev. C	KJ/JLM	✓ M

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_

Date: \_\_\_\_\_

Work Order update only 

Work Order: \_\_\_\_\_

Part No. \_\_\_\_\_

NCR No. \_\_\_\_\_

DISPOSITION		
Rework	<input type="checkbox"/>	
Scrap	<input type="checkbox"/>	
Use-as-is	<input type="checkbox"/>	
Suspected Unapproved	<input type="checkbox"/>	

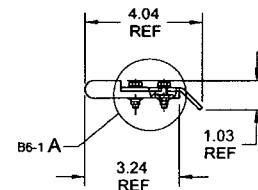
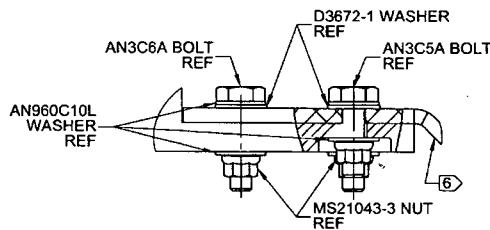
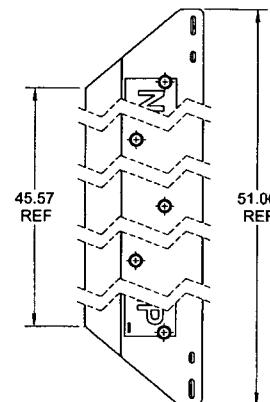
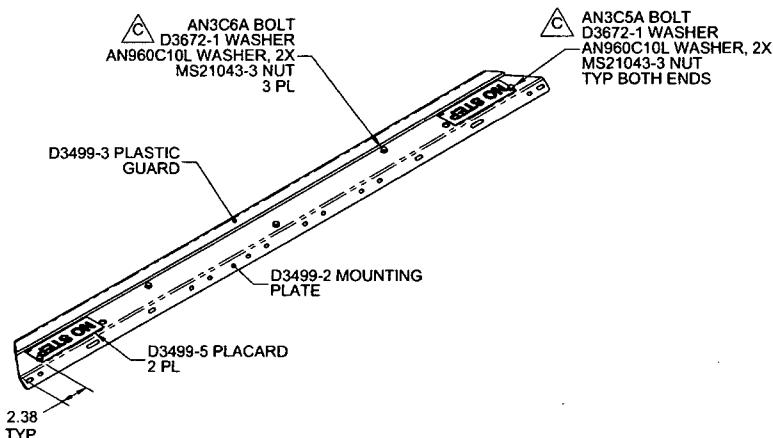
AGAINST DEPARTMENT/PROCESS							
Skid-tube	<input type="checkbox"/>	Crosstube	<input type="checkbox"/>	Water Jet	<input type="checkbox"/>	Engineering	<input type="checkbox"/>
Machining	<input type="checkbox"/>	Small Fab	<input type="checkbox"/>	Prod. Eng. Coor.	<input type="checkbox"/>	Quality	<input type="checkbox"/>
Thermoforming	<input type="checkbox"/>	Finishing	<input type="checkbox"/>	Rec/Store/Packaging	<input type="checkbox"/>	Other	<input type="checkbox"/>
Large Fab	<input type="checkbox"/>	Composite	<input type="checkbox"/>	Supplier	<input type="checkbox"/>		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

ITEM	QTY	P/N	DESCRIPTION
		-042	
1	X	D3499-042	CABLE GUARD ASSEMBLY
2	1	D3499-2	MOUNTING PLATE
3	1	D3499-3	PLASTIC GUARD
4	2	D3499-5	PLACARD
5	2	AN3C5A	BOLT
6	3	AN3C6A	BOLT
7	10	AN960C10L	WASHER
8	5	MS21043-3	NUT
9	5	D3672-1	WASHER



**D3499-042 CABLE GUARD ASSEMBLY**

**NOTES:**  
1) MATERIAL: N/A  
2) FINISH: N/A  
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3499-041-042" USING FINE POINT PERMANENT INK MARKER  
7) WEIGHT: 3.90 lbs

C	DRAWING UPDATED TO CURRENT STANDARDS 3.245 WAS 3.255 (ZN B8-3); 3.24 WAS 3.25 (ZN D3-3); 3.245 (ZN D3-3) WAS 2.00 (ZN D3-3); 03672-1 WAS 15.1515 (ZN D3-3); DS-1, D7-1, ADD IDENTIFY NOTE (ZN A8-1); REF NCR-09-045			RF	09.06.19
B	RE-DESIGN D3499-2F/-3			MB	06.08.15
A	NEW ISSUE			MB	06.04.11
REV.		DESCRIPTION		BY	DATE
DESIGN	<i>10</i>	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA			
DRAWN	RF	DRAWING NO.		REV. C	
CHECKED	<i>IP</i>	D3499		SHEET 1 OF 4	
MFG. APPR.	<i>PE</i>	TITLE			SCALE
APPROVED	<i>IP</i>	<b>CABLE GUARD</b>			NTS
DE APPR.	<i>IP</i>				
DATE	09.06.19	COPYRIGHT © 2006 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS PROVIDED. IT IS THE PROPERTY OF DART AEROSPACE USA, INC. ALL REPRODUCTION, FURTHER DISTRIBUTION, OR USE IS PROHIBITED.			

DQA: \_\_\_\_\_

Date: \_\_\_\_\_



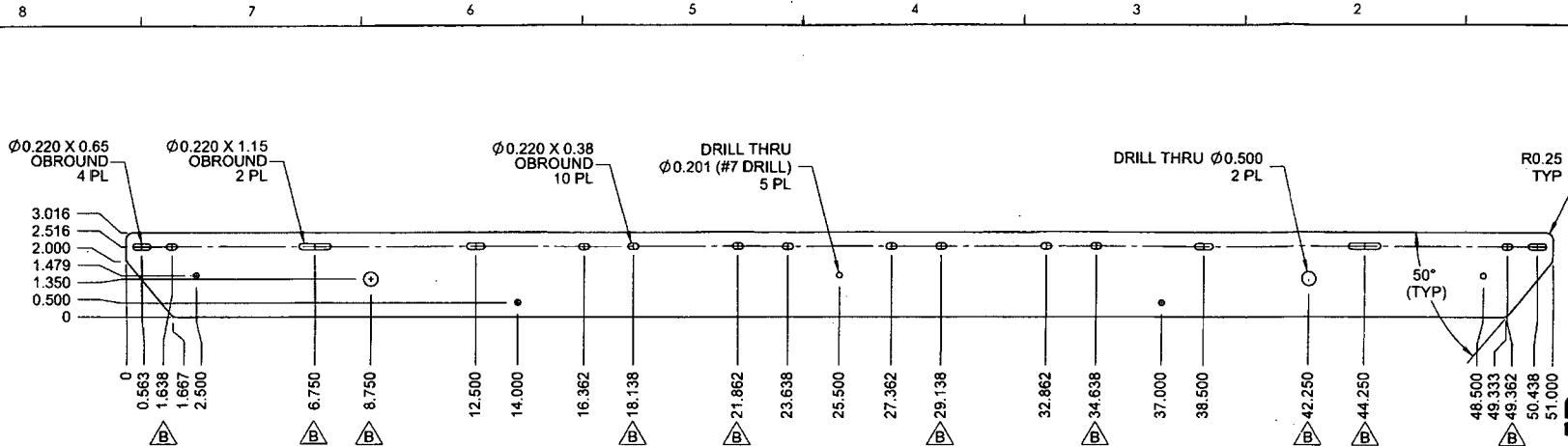
## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_

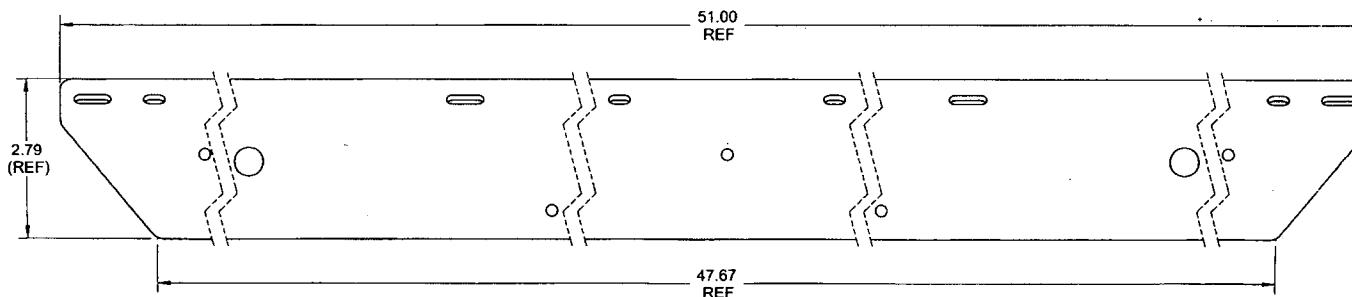
Date: \_\_\_\_\_

Work Order update only 

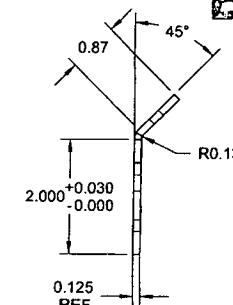
Work Order: _____			<b>DISPOSITION</b>		<b>AGAINST DEPARTMENT/PROCESS</b>					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved										
<b>FAULT CATEGORY</b>										
Landing Gear  Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence Wave/Twist in Tube	General									
	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Folio/Program	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>	Pressure/Forced		
	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Set-up		
	<input type="checkbox"/>	Broken/Damage/Defect	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Temperature/Cure		
	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Inspection Incomplete/Unqualified	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Weld		
	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>	Wrong Stock Pulled		
	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Misaligned/off center	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>	Power Loss/Surge		
	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other		
	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Misread	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Off-set	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	Fit/Function	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



**D3499-2F MOUNTING PLATE FLAT PATTERN**  
SCALE 0.5X



**D3499-2 MOUNTING PLATE**



**D3499-2 BENDING DETAIL**

**NOTES:**

- 1) MATERIAL: 6061-T6 ALUMINUM SHEET 0.125 THICK  
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209  
REF. DART SPEC. M6061T6S.125
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "WHITE" (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.81 lbs

DESIGN	<i>BB</i>	<b>DART AEROSPACE USA, INC.</b>		
DRAWN	RF	PORT HADLOCK, WA		
CHECKED	<i>yy</i>	DRAWING NO.	REV. C	
MFG. APPR.	<i>yy</i>	D3499	SHEET 2 OF 4	
APPROVED	<i>yy</i>	TITLE	SCALE	
DE APPR.	<i>yy</i>	CABLE GUARD	NTS	
DATE	09.06.19			

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8 1 7 6 5 4 3 2 1 0

**RELEASED**  
2010-02-02

DQA:

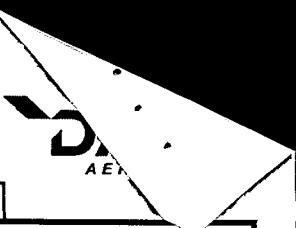
Date:

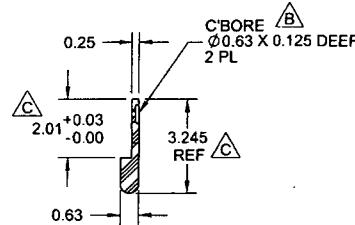
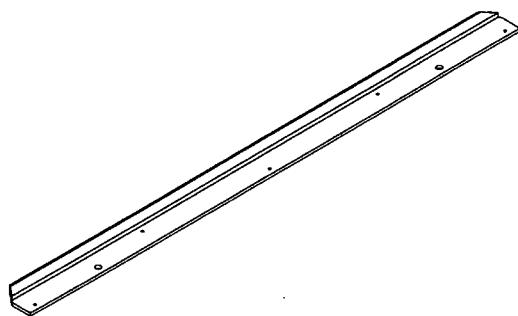
## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

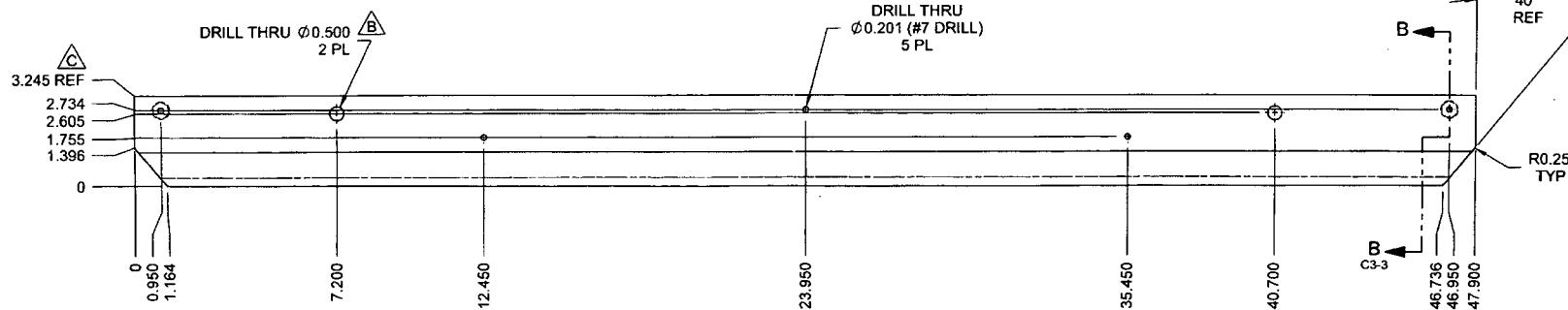
Date:

## Work Order update only





**SECTION B-B B2-3**



**D3499-3 CABLE GUARD**

**RELEASED**  
2010-02-02  
*WJ*

**NOTES:**

- 1) MATERIAL: UHMW BLACK TIVAR 1000 VIRGIN MATERIAL  
REF MUHMWB
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.52 lbs

DESIGN	<i>WJ</i>	<b>DART AEROSPACE USA, INC.</b>
DRAWN	RF	PORT HADLOCK, WA
CHECKED	<i>WJ</i>	DRAWING NO.
MFG. APPR.	<i>WJ</i>	REV. C
APPROVED	<i>WJ</i>	D3499
DE APPR.	<i>WJ</i>	SHEET 3 OF 4
DATE	09.06.19	TITLE
		SCALE
		NTS
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DQA:

Date:

## WORK ORDER NON-CONFORMANCE / UPDATE

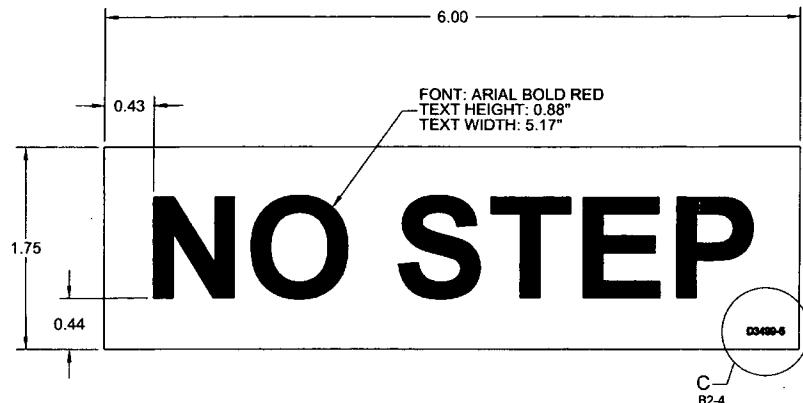
QA Closed:

Date:

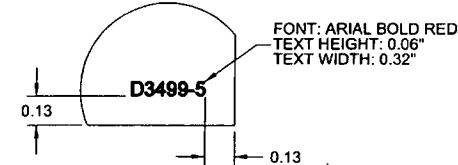
Work Order update only



Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____			Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____			Use-as-is <input type="checkbox"/>	Suspected Unapproved <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
			Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Supplier <input type="checkbox"/>		
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design										
Doc/Data										
Equip/Tooling										
Handling/Pre										
Material										
Operator										
Offset/Setup										
Process										
Supplier										
Training										
Transport										
Unapproved										
FAULT CATEGORY										
Landing Gear			General							
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function							
			<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence							
			<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge							
			<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled							
			<input type="checkbox"/> Other							



D3499-5 PLACARD



DETAIL C B5-4  
SCALE 2X

RELEASED  
2010-02-03  
WCB

NOTES:

- 1) MATERIAL: RED LETTERS ON WHITE ADHESIVE BACK VINYL  
MANUFACTURED FROM 3M 7 MIL MASKING FILM #8522CP OR  
AVERY IPM #2031. SIZE IS 6.00" LONG x 1.75" WIDE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

DESIGN	<i>b</i>	DART AEROSPACE USA, INC.	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	<i>b</i>	DRAWING NO.	
MFG. APPR.	<i>b</i>	REV. C	
APPROVED	<i>b</i>	D3499	
DE APPR.	<i>b</i>	SHEET 4 OF 4	
DATE	09.06.19	TITLE	
		CABLE GUARD	
		NTS	

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DQA: \_\_\_\_\_

Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_

Date: \_\_\_\_\_

Work Order update only 

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____	Suspected Unapproved <input type="checkbox"/>			Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
				Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
				Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

## FAULT CATEGORY

Landing Gear		General									
<input type="checkbox"/>	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Folio/Program	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>	Pressure/Forced		
<input type="checkbox"/>	Centre Not Concentric	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Set-up		
<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Broken/Damage/Defect	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Temperature/Cure		
<input type="checkbox"/>	Crimp/Kink/Ripple/Wave	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Inspection Incomplete/Unqualified	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Weld		
<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>	Wrong Stock Pulled		
<input type="checkbox"/>	Crushing	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Misaligned/off center	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>	Other		
<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>			
<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Misread	<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>	Marks/Chatter	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Off-set	<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Fit/Function	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>			